

REPORT

OF THE

STATE ENGINEER

OF THE

STATE OF LOUISIANA

TO THE

GENERAL ASSEMBLY.



SESSION--JANUARY, 1867.



NEW ORLEANS:
J. O. NIXON, STATE PRINTER.
1867.

LIBRARY
LOUISIANA STATE UNIVERSITY

REPORT.

STATE OF LOUISIANA, EXECUTIVE DEPARTMENT, {
New Orleans, January 31, 1867. }

To the President of the Senate:

I have the honor to transmit accompanying report of the State Engineer.

J. MADISON WELLS,
Governor of Louisiana.

OFFICE STATE ENGINEER, {
New Orleans, Jan. 25th, 1867. }

To his Excellency J. M. Wells,
Governor State of Louisiana:

GOVERNOR:—My several reports to you, during the past year, concerning the progress of reconstruction of the Levees along the Mississippi River, obviate the necessity of entering into a detail account relative thereto at the present time.

The Levees of the First Division are rapidly drawing to a completion. The very important one at Morganza is finished, whilst the one at "Grand Levee" requires but the labor of a few hands to complete it.

The "Chinn & Robinson" Levee is equally well advanced, and I doubt not by the 1st of February the contractors will have received the final estimate.

The numerous other Levees of this district are small in comparison to those mentioned above, and are mostly completed. The Levees of the 2d district are of much greater size and number, but owing to the great amount of energy displayed and the number of men engaged, are in as fully advanced a state as those of the 1st Division.

The labors of the Levee Commissioners, the difficulties they have had to contend with, their successes and their failures within the last year, will doubtless be the subject of a report from the Board, as belonging entirely to their duties. Simply suggesting that the numerous constant and ever changing variations of the river will require constant and continuous care and work, more particularly in the 2d division, where the caving in of the bank is of almost daily occurrence, necessitating at any moment, unlooked for temporary protective levees.

The engrossment of the funds of the State by the all important work of reconstruction of the levees, has prevented a more enlarged field of operations in my department; but for the coming year I would respectfully call your attention to the importance of legislative action with regard to the closing of Bayou Lafourche. By reference to the accompanying

255487

drawings, (the result of a survey just completed,) the long line of levees on each side of the Bayou, to be kept in order, can readily be seen. The comparative small cost of placing a drain across the mouth of the Bayou with that of keeping said line of levees in repair is but too evident. The great benefits to the surrounding country, occasioned by converting a Bayou, dangerous at any moment of high water, into a draining canal, a receptacle for the waters of the swamps or for the waters of the Mississippi flowing from a crevasse, are equally as positive and practical. The gradual filling up of the bed of the Bayou and the increasing height of the levees as the consequent, in order to form a cross section of sufficient size to contain the water flowing from the Mississippi, are additional reasons. The Opelousas Railroad, menaced yearly by overflow and temporary suspension of its operations, owing to its route across that section of country, would be in comparative safety, certain so far as regards any high water of Bayou Lafourche. A branch road along the Bayou and connecting with the Mississippi river at one terminus, and the Opelousas Railroad at the other, would give the double advantage of two routes to the city of New Orleans for travellers and freight. Slack water navigation is practicable, and for a small outlay can be made excellent at all seasons. I have not suggested locks for fear that, at the present state of the Treasury, some indisposition might arise relative to an appropriation for the same; and again, a dam placed across the Bayou at the present time, would not prevent locks being inserted at some future period, and communication again established with the Mississippi. The objection to be urged against the closing of the bayou, is the additional amount of water thus directed into the river; but I would venture the opinion that the slight acceleration of current thus obtained would counteract the slight additional volume of water added to the main channel. The relative difference of proportion of the cross section of the Bayou with that of the cross section of the river is so great that I can but conceive the elevation of the surface of the river to be nearly theoretical.

The mouth of the Mississippi, the approach to the great market of the south-west, is greatly in need of the fostering care of the Legislature; not only on account of the demands of commerce, but equally so with regard to the necessity of creating a clean and free channel for the direct and more rapid passing away of the water. On the 18th of the present month, 60,000 bales of cotton, besides other cargoes, and no less than twenty-one vessels were there detained; the detention in some instances amounting to thirty days. Appropriations have been solicited from the General Government for years past. The question has been agitated time and again by individuals and corporations, and unless some decisive action is taken by the State Government a continuation of trouble, delay, expenditure, and loss of time and capital will be the result. New channels for trade will be opened, and the trade and commerce legitimately belonging to the city of New Orleans, will by reason of the difficulties to be overcome at the mouth of the Mississippi, find its way up the River, and thence through more Northern ports to its ultimate destination.

The small amount appropriated by Congress lately is insufficient to maintain or keep open the channel for any length of time; the continual deposit, and the constant formation of bars at the meeting of the fresh and salt water, will require as continuous and constant exertion and labor in their removal. Not only is the city of New Orleans greatly interested in the improvement of the channel, but the State at large. Cooperation might therefore affect the consummation of a work of such general and great importance.

I would also ask for aid and assistance for the improvement of Red River. The very many wrecks of steamboats, still remaining in the channel, are rendering dangerous the navigation of the river, and causing bars and obstructions that will daily add to the already existing difficulties. A wrecking boat will, at small outlay, do good service and return many times the amount invested. Owing to the construction of the break-water by the Federals just above the town of Alexandria, the water has been directed from its original channel and thrown against the banks, causing considerable caving to the same, and threatening much damage to the town. I would respectfully suggest counter-works in order to direct the river to a proper course, relieve the town and facilitate the navigation.

The surveys, etc., made of "Tones Bayou," and its connection with the Red River and Bayou Pierre, demonstrate the necessity of closing its mouth and retaining the current of the river within the main channel. Owing to the difference of levels of Red River and Bayou Pierre, the greater part of the water flows towards Bayou Pierre, and unless some action is taken, navigation, in a short time, will cease entirely in low water. Unless care and precaution are used by the planters residing below "Tones Bayou," some damage may result from the closing of the bayou, should high water take place immediately after the construction of the dam, and before the channel is enlarged; but it is difficult to attempt improvements where all shall be gainers and no man suffers. Should Red River flow into Bayou Pierre, all the back lands would be overflowed, drainage destroyed, and navigation lost, not only for the country below "Tones Bayou," but all above, cutting off North-Western Louisiana from communication with the Mississippi.

The levee at Pascagoula Bayou has given way, and a considerable quantity of water passes through into Bayou Pierre. An appropriation is required likewise for this point.

All outlets drawing water from Red River should be closed in order to maintain navigation at a low stage of the river.

An appropriation will be required for the extension of the buildings of the State Seminary near Alexandria. The accommodation for students is somewhat incomplete, and I beg a favorable consideration of the same, in order to facilitate the complete and proper organization of the institution.

The buildings of the University in this city have undergone considerable repair out of the appropriation made last session by the Legislature; and although not entirely completed, I am under the impression that the amount will suffice. I enclose the expenditure to date.

To the "New Canal" I would particularly call your attention. Last session I recommended the enlargement of the canal, with the hope of very greatly increasing the trade and commerce of the same; and from the past season's observations, I would all the more advocate the improvement contemplated last year. Direct trade, and of very considerable importance, would thus be obtained with Alabama and Florida. Intercourse with Mobile, Montgomery and Selma, etc., etc., would then be on a more extended scale, and steamboats of large capacity would find ample accommodation for the discharge of their cargoes. The city of New Orleans, by virtue of its size, will afford a better market for the productions from those States, whilst her superiority as a port of entry will enable better selections of foreign goods to be purchased, at rates more reasonable, and varieties more general, than could be obtained elsewhere.

In connection with canals, I would likewise suggest the excavation of a canal communicating with the Mississippi river, beyond and above the

limits of the city of New Orleans and below the town of Carrollton, thence continuing down in the rear of the city to the "New Canal," on a line nearly parallel to the river. At the junction of the canal and the Mississippi, locks would be requisite. Safe and direct communication would thus be obtained with the lake, and with the States of Alabama and Florida, as mentioned above. Whatever was applicable to the suggestion of increasing the size of the "New Canal," is doubly so when the same is produced or prolonged to a connection with the Mississippi. The coal boats, barges, etc., descending from the West would find greatly improved accommodation within the new channel thus opened for them, and the discharge of their cargoes. The benefit to the city by the additional "water front," as it were, and the consequent great value added to the swamp in rear, would be immense. Nor is this all; for an additional result of the excavation of a canal would be a levee, entirely and perfectly securing the rear of the city above the New Canal from overflow.

I have suggested locating the canal "below the town of Carrollton," because of the height of the levee at that place, and the necessity of placing all dangerous localities outside of any work of protection needed for the city of New Orleans.

Among the many projects proposed for the benefit of the State, there is scarcely one of more importance and actual need, than the construction of the contemplated railroad from Orange to New Iberia, or to such point as to form a continuation of the New Orleans and Opelousas Railroad west and towards Texas, so as to connect with the lines of railroad from Galveston, Houston, etc. The lower portion of the State of Louisiana, a section of country unsurpassed for its fertility, and above overflow, would thus be brought into proper and direct intercourse and connection with the markets for its production, and receive at last a return for the help and assistance it has given in the way of taxes, to the general amelioration of lands subject to overflow. The line proposed is about one hundred and twenty miles in length, and when completed, and added to the roads in Texas and to the New Orleans, Opelousas and Great Western Railroad, will complete a line of railroad seven hundred miles long. The importance of the construction of the road can be estimated best by considering that the city of New Orleans will then become the port of entry for the State of Texas.

If I have not enumerated all the many channels through which the State could be benefitted, and refrained from calling your attention to the same, it is because, to go beyond the most important, and actually necessary, would require far more expenditure than I fear the Legislature would be enabled to grant. I am aware there are points where a bayou rendered navigable, a swamp drained, or a road built, would greatly benefit localities; still, the great interest to the State at large, requires first, the consideration of such points of general improvement as will conduce to the greatest good to the greatest number.

If I have asked for appropriations for the benefit of the city of New Orleans, it is because aid extended to her, is the sooner returned to the State at large. The more easy and expeditious her communication with other ports, the more encouraging and advantageous to the people of the country. The greater the number of markets dependent upon the productions of the country, the greater will be the demand, and the consequent necessity for the greater supply.

Respectfully submitted.

WILL. A. FRERET, *State Engineer.*